We claim:

1. A high-speed shear for transversely cutting rolled strip, the shear comprising gear wheels arranged at a fixed axial spacing in pairs opposite each other, driven in synchronous opposite rotation and in permanent engagement with each other, the gear wheels having shafts that support knife carriers mounted in eccentric bushings in a shear cassette within an outer frame, the shear cassette includes lifting means for raising and lowering the shear cassette within the outer frame and means for guiding the strip relative to a cutting position, wherein each knife carrier is a flat body with two long sides and two short sides, and wherein each short side has a knife arrangement, and wherein the knife arrangements are configured to interact in a cutting position, wherein the knife carriers are mounted within the shear cassette in the eccentric bushings which are driven by a gear unit with a fixed predefined transmission ratio.

2. A method of operating a high-speed shear for transversely cutting rolled strip with gear wheels arranged at a fixed axial spacing in pairs opposite each other, driven in synchronous opposite rotation and in permanent engagement with each other,

the gear wheels having shafts that support knife carriers mounted in eccentric bushings in a shear cassette within an outer frame, the shear cassette includes lifting means for raising and lowering the shear cassette within the outer frame and means for guiding the strip relative to a cutting position, wherein each knife carrier is a flat body with two long sides and two short sides, and wherein each short side has a knife arrangement, and wherein the knife arrangements are configured to interact in a cutting position, wherein the knife carriers are mounted within the shear cassette in the eccentric bushings which are driven by a gear unit with a fixed predefined transmission ratio, the method comprising carrying out a start-up of the shear by accelerating the rate of rotation of the shear, adjusting the distance of the knife carriers through eccentric bushings, and lowering the shear cassette with bearing chocks of the shear cassette, wherein a time for the start-up of the shear is determined by a transmission ratio between the eccentric bushings and the knife carriers.

3. The method according to claim 2, comprising carrying out a start-up of the shear by accelerating the rate of rotation of the shear, adjusting the distance of the knife carriers

through eccentric bushings, and lowering the shear cassette with bearing chocks of the shear cassette.

4. The method according to claim 3, wherein a time for the start-up of the shear is determined by a transmission ratio between the eccentric bushings and the knife carriers.

5. The method according to claim 2, wherein the knife carriers are synchronized for opposite rotation within the shear cassette through gear wheels of the knife carriers which are in constant engagement with each other, further comprising configuring a tooth geometry of the gear wheels of the knife carriers, such that an axial displacement of the knife carriers of plus/minus 15 mm is possible.

6. The method according to claim 2, wherein the knife carriers have arch-shaped cutting knives, comprising maintaining a synchronization of both knife carriers of less than 0.5 mm for

obtaining an exact arch-shaped cut of a strip having a thickness of 0.8 mm.

7. The method according to claim 2, comprising exactly mounting the arch-shaped knives for carrying out an arch-shaped cut with two knives at a travel speed of the strip of up to 20 m/sec.

8. The method according to claim 2, comprising maintaining a tension of the strip between two pairs of drivers.

9. The method according to claim 4, comprising rotating the eccentric bushings opposite to the rotation of the knife carriers.